

[illegible]

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```
LL      IIIIII  BBBB8888  CCCCCCCC  VV      VV  TTTTTTTTTT  DDDDDDDD  FFFFFFFFFF
LL      IIIIII  BBBB8888  CCCCCCCC  VV      VV  TTTTTTTTTT  DDDDDDDD  FFFFFFFFFF
LL      II      BB      BB  CC      CC  TT      TT  DD      DD  FF      FF
LL      II      BB      BB  CC      CC  TT      TT  DD      DD  FF      FF
LL      II      BB      BB  CC      CC  TT      TT  DD      DD  FF      FF
LL      II      BB      BB  CC      CC  TT      TT  DD      DD  FF      FF
LL      II      BB      BB  CC      CC  TT      TT  DD      DD  FFFFFFFF
LL      II      BB      BB  CC      CC  TT      TT  DD      DD  FFFFFFFF
LL      II      BB      BB  CC      CC  TT      TT  DD      DD  FF      FF
LL      II      BB      BB  CC      CC  TT      TT  DD      DD  FF      FF
LL      II      BB      BB  CC      CC  TT      TT  DD      DD  FF      FF
LLLLLLLLLLLL  IIIIII  BBBB8888  CCCCCCCC  VV      VV  TTTTTTTTTT  DDDDDDDD  FF      FF
LLLLLLLLLLLL  IIIIII  BBBB8888  CCCCCCCC  VV      VV  TTTTTTTTTT  DDDDDDDD  FF      FF
```

```
LL      IIIIII  SSSSSSSS
LL      IIIIII  SSSSSSSS
LL      II      SS
LL      II      SS
LL      II      SS
LL      II      SS
LL      II      SSSSSS
LL      II      SSSSSS
LL      II      SS
LL      II      SS
LL      II      SS
LL      II      SS
LLLLLLLLLLLL  IIIIII  SSSSSSSS
LLLLLLLLLLLL  IIIIII  SSSSSSSS
```

(2) 51  
(3) 62  
(4) 96

HISTORY ; Detailed Current Edit History  
DECLARATIONS  
LIB\$CVTDF - Convert Double to Floating and check overflow

```
0000 1      .TITLE  LIB$CVTDF      ; Convert Double to Floating
0000 2      .IDENT  /1-010/        ; File: LIB$CVTDF.MAR Edit: RNH1010
0000 3
0000 4
0000 5 *****
0000 6 *
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0000 24 *
0000 25 *
0000 26 *****
0000 27
0000 28
0000 29 FACILITY: General Utility Library
0000 30 ++
0000 31 ABSTRACT:
0000 32
0000 33 LIB$CVTDF converts a Double precision floating point scalar
0000 34 quantity to Single precision floating point quantity and
0000 35 checks for floating overflow.
0000 36
0000 37 --
0000 38
0000 39 VERSION: 01
0000 40
0000 41 HISTORY:
0000 42
0000 43 AUTHOR:
0000 44 Thomas N. Hastings, 27-May-77: Version 01
0000 45
0000 46 MODIFIED BY:
0000 47
0000 48
0000 49
```



LIB\$CVTDF  
1-010

K 8  
; Convert Double to Floating 15-SEP-1984 23:49:58 VAX/VMS Macro V04-00 Page 2  
HISTORY ; Detailed Current Edit History 6-SEP-1984 11:04:19 [LIBRTL.SRC]LIBCVTDF.MAR;1 (2)

```
0000 51 .SBTTL HISTORY ; Detailed Current Edit History
0000 52
0000 53
0000 54 ; Edit History for Version 01 of LIB$CVTDF
0000 55 ;
0000 56
0000 57 ; 1-007 - Update version number and copyright notice. JBS 16-NOV-78
0000 58 ; 1-008 - Remove $CHFDEF macro - it is not needed. JBS 16-DEC-78
0000 59 ; 1-009 - Add "" to PSECT directive. JBS 21-DEC-78
0000 60 ; 1-010 - Change shared external references to G^ RNH 25-Sep-81
```

```
0000 62          .SBTTL  DECLARATIONS
0000 63
0000 64 :
0000 65 : INCLUDE FILES:
0000 66 :
0000 67 :
0000 68 :
0000 69 : EXTERNAL SYMBOLS:
0000 70 :
0000 71 :
0000 72
0000 73          .EXTRN  LIB$SIG_TO_RET      ; Library routine to convert a signal
0000 74                                           ; to an error return to caller
0000 75                                           ; if the establisher
0000 76                                           ; R0 = signaled condition
0000 77 :
0000 78 : MACROS:
0000 79 :
0000 80 :
0000 81 : EQUATED SYMBOLS:
0000 82 :
0000 83 :
0000 84 :
0000 85 : OWN STORAGE:
0000 86 :
0000 87 :
0000 88 :
0000 89 : PSECT DECLARATIONS:
0000 90 :
0000 91
00000000 92          .PSECT  _LIB$CODE PIC,SHR,LONG,EXE,NOWRT
0000 93                                           ; program section for LIB$ code
0000 94
```

```
0000 96 .SBTTL LIB$CVTDF - Convert Double to Floating and check overflow
0000 97
0000 98
0000 99 :++
0000 100 FUNCTIONAL DESCRIPTION:
0000 101 LIB$CVTDF converts a Double precision floating point scalar
0000 102 to a single precision floating point scalar and checks
0000 103 for floating point overflow.
0000 104
0000 105 CALLING SEQUENCE:
0000 106
0000 107 Status.wlc.v = FOR$CVTDF (double.rd.r, floating.wf.r)
0000 108
0000 109
0000 110 INPUT PARAMETERS:
0000 111
00000004 0000 112 double = 4 ; first arg is adr. of double prec. scalar
0000 113
0000 114 IMPLICIT INPUTS:
0000 115 NONE
0000 116
0000 117 OUTPUT PARAMETERS:
00000008 0000 118
0000 119 single = 8 ; second arg is adr. of single prec. scalar
0000 120
0000 121 IMPLICIT OUTPUTS:
0000 122 NONE
0000 123
0000 124 COMPLETION CODES:
0000 125
0000 126 Success if no floating overflow, otherwise failure
0000 127
0000 128 SIDE EFFECTS:
0000 129 NONE
0000 130
0000 131 --
0000 132
0000 133
0000 134
0000 135 .ENTRY LIB$CVTDF, 0 ; standard call-by-reference entry
0002 136
6D 00000000'GF DE 0002 137 MOVAL G^LIB$SIG TO_RET, (FP) ; setup handler
08 BC 04 BC 76 0009 138 CVTDF @double(AP), @single(AP); convert double to floating
000E 139 ; trap on overflow to handler
000E 140 ; which will unwind an return err cond
000E 141 ; in R0 to caller of LIB$CVTDF
50 01 CE 000E 142 MNEGL #1, R0 ; success status code
04 0011 143 RET ; return
0012 144
0012 145 .END
```



LIB\$CVTDF  
Symbol table

; Convert Double to Floating

N 8

15-SEP-1984 23:49:58 VAX/VMS Macro V04-00  
6-SEP-1984 11:04:19 [LIBRTL.SRC]LIBCVTDF.MAR;1

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(4)

DOUBLE = 00000004  
LIB\$CVTDF 00000000 RG 01  
LIB\$SIG\_TO\_RET \*\*\*\*\* X 00  
SINGLE = 00000008

-----  
! Psect synopsis !  
-----

PSECT name	Allocation	PSECT No.	Attributes													
ABS	00000000 ( 0.)	00 ( 0.)	NOPIC	USR	CON	ABS	LCL	NOSHR	NOEXE	NORD	NOWRT	NOVEC	BYTE			
LIB\$CODE	00000012 ( 18.)	01 ( 1.)	PIC	USR	CON	REL	LCL	SHR	EXE	RD	NOWRT	NOVEC	LONG			

-----  
! Performance indicators !  
-----

Phase	Page faults	CPU Time	Elapsed Time
Initialization	31	00:00:00.06	00:00:02.55
Command processing	106	00:00:00.28	00:00:02.83
Pass 1	65	00:00:00.23	00:00:03.84
Symbol table sort	0	00:00:00.00	00:00:00.01
Pass 2	40	00:00:00.18	00:00:02.43
Symbol table output	1	00:00:00.00	00:00:00.00
Psect synopsis output	3	00:00:00.02	00:00:00.02
Cross-reference output	0	00:00:00.00	00:00:00.00
Assembler run totals	248	00:00:00.79	00:00:11.69

The working set limit was 900 pages.  
1409 bytes (3 pages) of virtual memory were used to buffer the intermediate code.  
There were 10 pages of symbol table space allocated to hold 4 non-local and 0 local symbols.  
145 source lines were read in Pass 1, producing 11 object records in Pass 2.  
0 pages of virtual memory were used to define 0 macros.

-----  
! Macro library statistics !  
-----

Macro library name	Macros defined
_\$255\$DUA28:[SYSLIB]STARLET.MLB;2	0

0 GETS were required to define 0 macros.

There were no errors, warnings or information messages.

MACRO/ENABLE=SUPPRESSION/DISABLE=(GLOBAL,TRACEBACK)/LIS=LIS\$:LIBCVTDF/OBJ=OBJ\$:LIBCVTDF MSRC\$:LIBCVTDF/UPDATE=(ENH\$:LIBCVTDF)



0204 AH-BT13A-SE  
VAX/VMS V4.0

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